

WHAT IS CLAIMED IS:

1. A homezone call forwarding service method comprising the steps of:

(1) sending, by an origination mobile switching center (MSC), a location request
 5 invoke message to a home location register (HLR) of a terminating subscriber in order to
 acquire location information of the terminating subscriber, when an originating subscriber
 calls the terminating subscriber;

(2) analyzing, by the HLR, number information included in the received location
 request invoke message to determine whether the number is a number for a homezone or
 10 a number for a non-homezone, and sending a routing information request invoke message
 to a terminating MSC in order to acquire routing information, said routing information
 request invoke message including a parameter for inserting number identification
 information and a termination trigger parameter for defining a termination trigger point
 presently activated for the subscriber;

(3) upon receipt of the routing information request invoke message, assigning, by
 15 the terminating MSC, a temporary local directory number (TLDN) for routing,
 registering a parameter having the number identification information and the termination
 trigger parameter in a visitor location register (VLR), and sending a routing information
 request result message having a routing information parameter to the HLR of the
 20 terminating subscriber;

(4) upon receipt of the routing information request result message, sending a
 location request result message to the originating MSC by the HLR of the terminating
 subscriber;

(5) detecting, by the originating MSC, a local directory number (LDN) included
 25 in the location request result message, routing the detected local directory number to the
 terminating MSC, and performing a call setup process;

(6) after call setup, determining by the terminating MSC whether to redirect a
 present call, by consulting the termination trigger parameter and a calling feature
 directive parameter registered in the VLR in a termination-inactivated state;

(7) sending, by the terminating MSC, a redirecting request invoke message to the originating MSC, when it is determined to redirect the present call;

(8) upon receipt of the redirecting request invoke message from the terminating MSC, sending, by the originating MSC, a transfer number request invoke message to the HLR of the terminating subscriber in order to determine a call forwarding number; and

(9) analyzing, by the HLR of the terminating subscriber, the transfer number request invoke message to determine to which phone number the present call should be redirected, searching for a call forwarding number of the terminating subscriber for a call forwarding service, inserting the searched call forwarding number in the transfer number request result message, and then sending the transfer number request result message to the originating MSC.

2. The homezone call forwarding service method as claimed in claim 1, wherein, the originating MSC detects the call forwarding number from the transfer number request result message and restarts a termination process.

3. The homezone call forwarding service method as claimed in claim 1, wherein, the termination trigger parameter is a parameter for defining a termination trigger point presently activated for the terminating subscriber.

4. The homezone call forwarding service method as claimed in claim 1, wherein the termination-inactivated state is one of a busy state, a no-answer state and a no-page response state.

5. The homezone call forwarding service method as claimed in claim 1, wherein, the parameter for inserting number identification information is a leg information parameter.

6. The homezone call forwarding service method as claimed in claim 5,

A wherein the redirecting request invoke message includes a redirecting reason parameter and a leg information parameter.

- 5 7. The homezone call forwarding service method as claimed in claim 5, wherein the transfer number request invoke message includes the leg information parameter and the termination trigger parameter.

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